

Commentaries Spark Debate

TO THE READER: In the January 1993 issue of the *Journal*, four members of the Society of Nuclear Medicine (Maynard, Wagner, Holman and Ell) speculated in individual commentaries on the future of nuclear medicine—offering specific, and divergent, solutions. Their commentaries generated lively response from readers; a number of those responses are printed below. The commentaries also sparked debate between Drs. Wagner and Holman at the annual meeting in June. Their exchange continued in the September *Newsline* (see September, page 27N).

Controversy stirred by healthy debate is key to the growth and survival of our specialty. It stimulates interest and participation, encourages critical thinking, and focuses decision-making. So please participate in the critical thinking necessary to ensure appropriate short-term and long-term decisions about and solutions for the nuclear medicine profession of the future, because the future is now!

H. William Strauss, Editor
The Journal of Nuclear Medicine

Human Element Integral to the Future of Nuclear Medicine

TO THE EDITOR: I read the comments on the future of nuclear medicine in the January issue of *The Journal of Nuclear Medicine* with great interest. The heated controversy raised by this topic clearly demonstrates its crucial importance. I would like to voice the humble standpoint of a strategist who has had the greatest difficulty defending and implementing his ideas in the French paradigm of nuclear medicine, a frustrating exercise that has thwarted many a fledgling specialist.

The basic problem confronting nuclear medicine is hardly new. Both in the U.S. and Europe, we have been steadily losing ground since the dramatic development of other imaging techniques. Technical and biological progress have saved us so far, making great flexibility in the face of formidable and multiform competition possible. Now, not only are we losing the field but also the players on the field, and rapidly at that. This situation is fast becoming critical—without any players, defeat is certain.

Why this shortage of manpower is a very difficult question to answer, since the process is multifactorial and complex. Surely the human factor is destined to play a pivotal role insofar as no technical evolution or revolution nor any complacency about the scientific bases of our specialty will be able to save us. We can rely only on our faith in the authentic clinical value of nuclear medicine.

Although the problem is easy to identify, solutions are much less clear, no matter how forcefully some may be propounded by brilliant protagonists in the columns of the *Journal* (1–4). When a challenge is as pressing and wide-ranging as ours, my experience is that the pragmatic approach should be preferred. With C.D. Maynard we must convince ourselves that physician recruitment is the utmost priority, in both Europe and the U.S., to bolster the

clinical dimension of our exciting specialty and its status in medical imaging.

Naturally, we need trailblazing researchers to prepare the advent of tomorrow's molecular medicine, as suggested by H.N. Wagner (2), but we cannot sacrifice short-term advances to long-term progress. Continuity is vital to progress, even in times of momentous changes. There is ample room for both researchers and clinicians in nuclear medicine over the coming ten years and beyond. Combining nuclear medicine and radiology is the only way to allow us to fight on all fronts. Defending a pure molecular and intellectual approach to nuclear medicine would merely have the short-lived result of artificially maintaining a noble specialty—without specialists.

This is no idle speculation. In France, we are already short the nuclear medicine specialists needed to maintain and develop clinical applications, not only in private practice, but in hospital practice as well. This problem must be emphasized because France is a country where, among researchers, nuclear medicine specialists are overwhelmingly recruited. Furthermore, the use of nuclear medicine in private practice is a recent phenomenon in France, largely contributing to its progress over the past seven years. Our French paradigm clearly highlights the danger of a purely theoretical approach that does not take into account the multiple facets of medical and human reality. Our specialty will not be able to weather the ever-growing onslaught of competing imaging techniques if it is not well grounded in everyday clinical practice. By the time molecular medicine has carved its place, it will be too late for nuclear medicine. The urgent priority is to prepare for the future by attracting highly motivated and innovative physicians, not only among researchers, but also among young radiologists well trained in medical imaging and versatile enough to understand the basic orientations of radiology and nuclear medicine despite their fundamental differences.

The tracer principle is a marvelous scientific tool which can be mastered by any intelligent physician, provided he/she is willing and the teacher up to the task. We need to communicate our enthusiasm about nuclear medicine to all medical students and young radiologists, who would probably be quite happy to break new ground in the field of abstraction and quantification if we could convince them of the clinical usefulness of such an approach. Admittedly, radiology is more visual and anatomical than nuclear medicine, but this shouldn't pose a problem since the future of medical imaging techniques will probably evolve more toward quantification and abstraction.

The European Community has decreed that nuclear medicine is an independent medical specialty without any theoretical or practical connection with radiology. This decision is more dogmatic than realistic or pragmatic. What we need is real synergy between researchers and clinicians expert in nuclear medicine; i.e., people capable of bridging the gap between "pure researchers" and "pure clinicians." These go-betweens would ideally be recruited among students with an interest in clinical imaging and radiology. It is time to take another look at the practice of nuclear medicine, as its survival cannot rest only on theoretical, speculative, or futuristic considerations at the expense of human factors and